

It is claimed:

1 1. A method of accessing video data and user agent data for playback by an
2 optical disc player, comprising:
3 transferring a program chain of video data from a source to a track buffer while not
4 transferring user agent data; and
5 transferring a set of user agent data associated with said program chain from said
6 source to a user agent buffer while not transferring video data.

1 2. The method of claim 1, wherein transferring said program chain occurs
2 before transferring said set of user agent data.

1 3. The method of claim 1, wherein transferring said program chain occurs after
2 transferring said set of user agent data.

1 4. The method of claim 1, further comprising decoding said program chain of
2 video data in order to display said program chain of video data.

1 5. The method of claim 1, further comprising decoding said set of user agent
2 data in order to display said set of user agent data.

1 6. The method of claim 1, further comprising:
2 decoding said program chain of video data in order to display said program chain of
3 video data; and
4 rendering said set of user agent data for displaying said set of user agent data
5 concurrently with said program chain of video data.

1 7. The method of claim 1, wherein said source comprises a local optical disc.

1 8. The method of claim 1, wherein said source comprises a source external to
2 said optical disc player.

1 9. The method of claim 8, wherein said external source comprises a server.

1 10. The method of claim 8, wherein said source external comprises an external
2 hard drive.

1 11. The method of claim 8, wherein said external source comprises an external
2 local optical disc.

1 12. An optical disc player, comprising:
2 a track buffer to temporarily store video data;
3 a user agent buffer to temporarily store user agent data; and
4 a data read controller to cause a transfer of a program chain of video data from a
5 source to said track buffer while not transferring user agent data, and to cause a transfer of a
6 set of user agent data associated with said program chain of video data to said user agent
7 buffer while not transferring video data.

1 13. The optical disc player of claim 12, wherein said data read controller causes
2 said transfer of said program chain before causing said transfer of said set of user agent data.

1 14. The optical disc player of claim 12, wherein said data read controller causes
2 said transfer of said program chain after causing said transfer of said set of user agent data.

1 15. The optical disc player of claim 12, further comprising a video decoder to
2 decode said program chain of video data in order to display said program chain of video data.

1 16. The optical disc player of claim 12, further comprising a user agent viewer to
2 render said set of user agent data for displaying.

1 17. The optical disc player of claim 12, further comprising an optical disc reader
2 to read said program chain and/or said set of user agent data from a local optical disc.

1 18. The optical disc player of claim 12, further comprising an interface to receive
2 said program chain and/or said set of user agent data from an external source.

1 19. A method of accessing video data and user agent data for playback by an
2 optical disc player, comprising:
3 transferring a program chain of video data from a source to a track buffer; and
4 transferring a set of user agent data associated with said program chain from said
5 source to a user agent buffer concurrently with said transferring of said program chain of
6 video data from said source to said track buffer.

1 20. The method of claim 19, wherein transferring said set of user agent data is
2 performed in a manner that prevents an underflow of said track buffer.

1 21. The method of claim 19, wherein transferring said program chain is
2 performed in a manner that prevents an underflow of said user agent buffer.

1 22. The method of claim 19, wherein transferring said set of user agent data is
2 performed in a manner that prevents an overflow of said user agent buffer.

1 23. The method of claim 19, wherein transferring said program chain is
2 performed in a manner that prevents an overflow of said track buffer.

1 24. The method of claim 19, further comprising decoding said program chain of
2 video data in order to display said program chain of video data.

1 25. The method of claim 19, further comprising rendering said set of user agent
2 data for displaying.

1 26. The method of claim 19, further comprising:
2 decoding said program chain of video data in order to display said program chain of
3 video data; and
4 rendering said set of user agent data for displaying said set of user agent data
5 concurrently with said program chain of video data.

1 27. The method of claim 19, wherein said source comprises a local optical disc.

1 28. The method of claim 19, wherein said source comprises a source external to
2 said optical disc player.

1 29. An optical disc player, comprising:
2 a track buffer to temporarily store video data;
3 a user agent buffer to temporarily store user agent data; and
4 a data read controller to cause a transfer of a program chain of video data from a
5 source to said track buffer concurrently with a transfer of a set of user agent data associated
6 with said program chain of video data to said user agent buffer.

1 30. The optical disc player of claim 29, wherein said data read controller causes
2 said transfer of said program chain in a manner that prevents an underflow of said user agent
3 buffer.

1 31. The optical disc player of claim 29, wherein said data read controller causes
2 said transfer of said program chain in a manner that prevents an overflow of said track buffer.

1 32. The optical disc player of claim 29, wherein said data read controller causes
2 said transfer of said user agent data in a manner that prevents an underflow of said track
3 buffer.

1 33. The optical disc player of claim 29, wherein said data read controller causes
2 said transfer of said user agent data in a manner that prevents an overflow of said user agent
3 buffer.

1 34. The optical disc player of claim 29, further comprising a video decoder to
2 decode said program chain of video data in order to display said program chain of video data.

1 35. The optical disc player of claim 29, further comprising a user agent decoder
2 to render said set of user agent data for displaying.

1 36. The optical disc player of claim 29, further comprising an optical disc reader
2 to read said program chain and/or user agent data from a local optical disc.

1 37. The optical disc player of claim 29, further comprising an interface to receive
2 said program chain and/or said user agent data from an external source.

1 38. A method of associating video data with user agent data, comprising:
2 providing a first directory table containing a plurality of program chains of video data
3 and respective pointers to a plurality of sets of user agent data associated respectively with
4 said plurality of program chains of video data.

1 39. The method of claim 38, further comprising providing a second directory
2 table containing said plurality of sets of user agent data and respective pointers to objects
3 associated respectively with said plurality of sets of user agent data.

1 40. A method of associating video data with user agent data, comprising:
2 providing a first directory table containing a plurality of sets of user agent data and
3 respective pointers to a plurality of program chains of video data associated respectively with
4 said plurality of sets of user agent data.

1 41. The method of claim 40, wherein said first directory table further contains
2 pointers to objects associated respectively with said plurality of sets of user agent data.

1 42. The method of claim 40, further comprising providing a second directory
2 table containing said plurality of program chains of video data.

1 43. A method of accessing video data and user agent data for playback by an
2 optical disc player, comprising:
3 transferring video data from a source to a track buffer; and
4 transferring user agent data in synchronous with said video data from said source to a
5 user agent buffer simultaneously with said transferring of said video data from said source to
6 said track buffer.

1 44. The method of claim 43, wherein transferring said user agent data is
2 performed in a manner that prevents an underflow of said track buffer.

1 45. The method of claim 43, wherein transferring said video data is performed in
2 a manner that prevents an underflow of said user agent buffer.

1 46. The method of claim 43, wherein transferring said user agent data is
2 performed in a manner that prevents an overflow of said user agent buffer.

1 47. The method of claim 43, wherein transferring said video data is performed in
2 a manner that prevents an overflow of said track buffer.

1 48. The method of claim 43, further comprising decoding said video data in order
2 to display said video data.

1 49. The method of claim 43, further comprising rendering said user agent data in
2 order to display said set of user agent data.

1 50. The method of claim 43, wherein said source comprises a local optical disc.

1 51. The method of claim 43, wherein said source comprises a source external to
2 said optical disc player.

1 52. The method of claim 43, wherein transferring said video data and transferring
2 said user agent data comprises using two optical disc reading drives to read said video data
3 and said user agent data simultaneous from a local optical disc.

1 53. An optical disc player, comprising:
2 a track buffer to temporarily store video data;
3 a user agent buffer to temporarily store user agent data;
4 an optical disc drive having a first reading mechanism to read video data from a local
5 optical disc and a second reading mechanism to read user agent data from said local optical
6 disc; and
7 a data read controller to cause said first reading mechanism to read video data, to
8 cause said second reading mechanism to read user agent data simultaneous with said first

9 reading mechanism reading of said video data, and to cause a transfer of said video data and
10 user agent data respectively to said track buffer and said user agent buffer.

1 54. The optical disc player of claim 53, wherein said data read controller causes
2 said transfer of said video data in a manner that prevents an underflow of said user agent
3 buffer.

1 55. The optical disc player of claim 53, wherein said data read controller causes
2 said transfer of said video data in a manner that prevents an overflow of said track buffer.

1 56. The optical disc player of claim 53, wherein said data read controller causes
2 said transfer of said user agent data in a manner that prevents an underflow of said track
3 buffer.

1 57. The optical disc player of claim 53, wherein said data read controller causes
2 said transfer of said user agent data in a manner that prevents an overflow of said user agent
3 buffer.

1 58. The optical disc player of claim 53, further comprising a video decoder to
2 decode said video data in order to display said video data.

1 59. The optical disc player of claim 53, further comprising a user agent decoder
2 to render said user agent data for displaying.

1 60. The optical disc player of claim 53, further comprising an interface to receive
2 user agent data from an external source.

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